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MORTALITY EXPERIENCE OF THE FIRST NINE MONTHS OF 1931

There is a fair prospect that the year 1931 will record a lower deathrate than ever before in the United States and Canada. The state of the public health in the last quarter of the year will determine. The mortality record for the large cross-section of the population comprised by the millions of Industrial policyholders of the Metropolitan Life Insurance Company shows that at the end of the third quarter the cumulative deathrate was only three-quarters of one per cent. higher than the previous minimum for the like period of any year—established only last year. So slight an adverse margin may be easily overcome during the final quarter.

Regardless, however, of whether a new low point in the deathrate is actually reached, the 1931 health record to date is in many respects the most remarkable of all the years. In the first place, it is almost unbelievable that the United States and Canada could experience such excellent health in a year of severe business depression and widespread unemployment. These are conditions which lead us to expect an increased death toll—especially among industrial wage-earners and their dependents, the very group who suffer most from the effects of unfavorable economic conditions. Again, the year's remarkable record has been made in spite of a bad beginning. In January, there was widespread prevalence of influenza and the deathrate from that disease and from pneumonia rose sharply. So also did the mortality from the principal chronic diseases, namely, heart conditions, diabetes, cerebral hemorrhage and nephritis, as invariably happens during an influenza epidemic. Increased deathrates, as compared with 1930, were recorded during February and March, and, at the end of the first quarter, there appeared to be small prospect that 1931 would rank as an exceptionally good health year. Beginning with the second quarter, however, a

distinct change for the better was observed. The April deathrate, with two exceptions, was the lowest ever registered for that month; in May, a new minimum mortality rate for that month was recorded, and the second quarter established a new low figure for that part of the year. Excellent health conditions continued during the third quarter, especially among the colored policyholders. The outcome, as already noted, is that the cumulative deathrate now stands less than one per cent. higher than the previous minimum. Indeed, among the insured living west of the Rocky Mountains, and among Canadian policyholders, 1931, to date, has been the best health year on record.

New Minimum for Tuberculosis

Foremost among the favorable developments of 1931 is a further decline of 7½ per cent. in the tuberculosis deathrate, to a new minimal figure. If this drop is still in evidence at the end of the year, there will be recorded the largest year-to-year decrease registered for this disease in ten years. Such improvement is all the more remarkable in a year when unfavorable economic conditions would lead us to expect a rise in the mortality from tuberculosis. With every year the prospect that tuberculosis will soon be reduced to the rank of a minor cause of death becomes brighter. The movement against tuberculosis will henceforth be directed more and more upon those elements of the population where the disease is most prevalent. Resources will be concentrated chiefly, for example, upon the industrial populations of the cities, on negroes, on young women between the ages of ten and twenty-five, on persons engaged in certain occupations, more particularly, those in which there is exposure to silica dust; and on the general populations in certain states where, regardless of sex or color, the ravages of tuberculosis are worse than in other sections. Tennessee, Kentucky and the Province of Quebec are classic examples. Among all these groups, the situation among negro wage-earners is perhaps the gravest.

A New Low for Diphtheria

The drop in the diphtheria deathrate to a new minimum of 3.9 per 100,000 is another outstanding public health fact of 1931. This represents a decline of 34 per cent. in a single year in the mortality from this former leader among the scourges of childhood. The diphtheria deathrate is now about two-fifths of that recorded only five years ago, one-sixth of the figure registered ten years ago and one-seventh of the rate in 1911. The fight against diphtheria has been definitely won.

Deathrates* per 100,000 Persons Exposed. First Nine Months of 1929, 1930 and 1931 Compared. By Color for Principal Causes of Death. Metropolitan Life Insurance Company, Weekly Premium Paying Industrial Business

Causes of Death	Deathrates per 100,000 Persons Exposed*					
	White			Colored		
	Jan.-Sept. 1931	Jan.-Sept. 1930	Jan.-Sept. 1929	Jan.-Sept. 1931	Jan.-Sept. 1930	Jan.-Sept. 1929
All Causes of Death	815.8	800.2	869.6	1500.8	1560.7	1608.0
Typhoid fever	1.5	1.6	1.9	4.8	5.1	4.8
Measles	4.0	3.7	3.9	2.0	2.5	1.5
Scarlet fever	3.6	3.0	3.0	1.6	.8	1.0
Whooping cough	3.7	4.7	5.7	3.3	5.3	10.7
Diphtheria	4.2	6.3	8.6	2.1	2.8	5.9
Influenza	20.1	12.6	44.1	55.3	39.1	92.8
Meningococcus meningitis	2.1	3.1	4.7	6.4	9.9	8.2
Tuberculosis (All forms)	58.9	64.3	70.1	214.8	227.2	225.5
Tuberculosis of resp'y system	52.1	55.7	61.8	188.9	197.6	200.2
Tuberculosis of the meninges, etc.	2.9	3.9	3.7	6.1	6.9	5.6
Other forms of tuberculosis	3.9	4.8	4.5	19.8	22.8	19.7
Cancer	82.3	77.2	77.2	84.1	80.5	79.8
Diabetes	20.6	18.3	18.5	22.7	21.9	21.0
Alcoholism	2.7	2.8	3.0	3.7	4.9	4.8
Cerebral hemorrhage; apoplexy	53.9	52.4	51.4†	119.2	123.2	104.0†
Organic diseases of the heart	137.7	131.7	136.6	249.8	259.4	245.9
Total respiratory diseases	82.7	82.2	97.1	153.2	159.4	183.7
Bronchitis	2.9	3.3	3.6	3.9	5.6	5.3
Bronchopneumonia	31.3	30.5	37.1	42.6	45.0	55.4
Pneumonia (lobar and undefined)	41.3	41.1	48.4	95.1	96.9	109.8
Other dis. of resp'y system	7.2	7.3	8.0	11.6	12.0	13.2
Diarrhea and enteritis	15.3	19.3	20.5	15.0	19.3	22.2
Under 2 years	12.4	14.9	16.5	8.0	11.2	14.0
2 years and over	2.9	4.4	4.1	7.0	8.1	8.2
Acute nephritis	3.4	3.2	3.6	11.6	14.1	14.8
Chronic nephritis	58.4	59.4	61.8	132.0	138.3	129.5
Total puerperal state	10.5	11.7	12.6	17.5	19.2	22.9
Total external causes	74.6	74.9	74.2	105.1	117.1	116.3
Suicides	10.3	10.1	9.0	6.4	6.7	6.0
Homicides	3.9	3.4	2.9	28.3	30.0	30.1
Accidental and unspecified violence	60.4	61.4	62.2	70.5	80.3	80.3
Automobile accidents	20.9	20.0	19.1	22.8	20.7	19.7
All other and ill-defined causes of death	175.5	167.6	171.2	296.6	310.8	312.6

*All figures in this table include insured infants under one year of age. The rates for 1931 are subject to slight correction, since they are based on provisional estimates of lives exposed to risk.

†Rate not comparable with that for later years.

Mortality from Certain Other Diseases Lower Than Ever Before

Unless there are unfavorable developments in the final quarter of 1931, new low deathrates will also be recorded for typhoid fever, diarrheal complaints and puerperal conditions. The typhoid fever deathrate has been reduced to a point where it is a negligible item in our mortality statistics; the mortality from infantile diarrhea has dropped 80 per cent. in about two decades.

The "Degenerative" Diseases

A small increase is shown in the mortality from heart disease. If this is still in effect at the end of the year, a new high point in the deathrate will be reached. The increase this year is due, in large part, to the high mortality among cardiacs during the influenza outbreak of last winter. There has been a slight rise in the mortality from cerebral hemorrhage and a small drop in that from chronic nephritis.

Pneumonia

There has been no rise in the pneumonia deathrate thus far in 1931. This is unusual in a year with high mortality from influenza.

Unfavorable Aspects: Influenza, Cancer, Diabetes, Poliomyelitis

The diseases which show important increases in mortality during the January-September period are influenza, cancer, diabetes and poliomyelitis. Since the abatement of last winter's influenza epidemic, this disease has exhibited about the normal mortality.

Cancer

The mortality record for cancer is the most unfavorable item, to date, in the health record of 1931. We know of no explanation for the marked rise in the cancer deathrate. It is true that, over a long period of years, an upward trend has been observed in the mortality from cancer, but no such decided rise (6.4 per cent.) has been observed in any one previous year.

Continued Rise in the Diabetes Deathrate

The mortality from diabetes has increased nearly 12 per cent., as compared with the corresponding period of 1930. The deathrate for this disease has increased continuously since 1924; but the change from one year to the next has been larger in 1931 than ever before experienced among the Industrial policyholders.

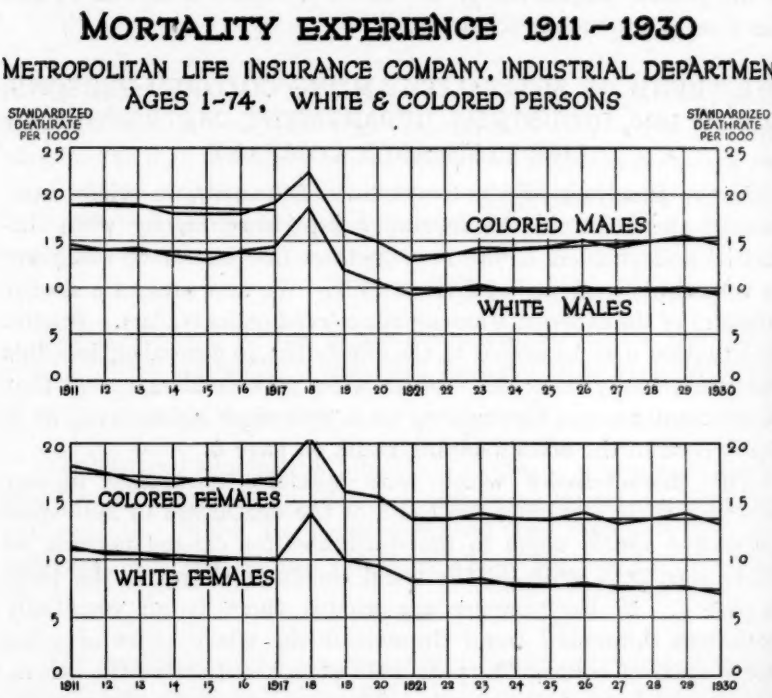
Slightly increased deathrates are shown for suicide and homicide. There have been fewer deaths from all types of accidents combined. The prospect is, nevertheless, that we shall record more automobile fatalities this year than ever before. The increase in the deathrate, as compared with that for the January-September period of 1930, was 5 per cent. If this same percentage of increase is found to obtain in the general population of the country, 34,650 lives will be lost this year in automobile accidents.

THE TREND OF MORTALITY AMONG COLORED PERSONS, 1911 TO 1930, INDUSTRIAL DEPARTMENT, METROPOLITAN LIFE INSURANCE COMPANY

In the June issue of the STATISTICAL BULLETIN, we briefly summarized the trend of the mortality experience among white Industrial policyholders of the Metropolitan Life Insurance Company for the twenty-year period 1911 to 1930. We now present a similar summary of the experience among our colored policyholders. Briefly, the situation may be stated to the effect that, in general outline, this experience closely resembles that for white policyholders, except that the deathrates move, throughout, on a somewhat higher level, as is clearly seen in the accompanying graph on page 6.

The characteristics which were specially mentioned in our previous article regarding the trend of the deathrates in individual age groups appear again in the deathrates for colored persons, as will be seen by a study of the trend constants shown in the table on page 7. In the younger age groups there is an essentially continuous downward trend throughout the whole series of years except that, of course, the year 1918 stands out above the others, owing to the influenza pandemic. There is, aside from this momentary effect of the pandemic, no marked after-effect in the young age groups, particularly at ages 5 to 19. In the older age groups the effect of the influenza pandemic shows itself, especially among males, in another way, namely, in that the deathrate in the years following the pandemic took a sudden fall, so that ever since then the deathrate has been moving on a lower level than before the pandemic. But there is a tendency, particularly marked among the males, to return to the old level. This feature immediately catches the eye if we inspect the last section of the accompanying table, the section which relates to the period 1921 to 1930. In this section, under the column head *b*, which denotes the mean fall or

rise per year, we note that for all age groups under 20 among males, and for all age groups under 35 among females, the entry in the table has a negative sign, indicating that for these age groups the trend is downward. For the remaining age groups, that is, over 20 for males, and over 35 for females, the trend is, in every instance, upward, as indicated by the plus sign. Among the males these figures rise as high as 1.71 for the highest age group, indicating a very definite upward trend. Furthermore, among males, all the



trend constants are significant, indicating that we are not dealing with a mere chance situation of a slight deviation from the horizontal trend, but with a definite upgrade. Among females, all the trends except that in the highest age group must be regarded as significant. In the group 20 to 34, the trend is practically horizontal, and here the fact that the slight negative value found for the trend constant is insignificant merely means that for these years the deathrate has remained at a practically fixed level.

These figures, especially those for the males, might be taken to warn us that the temporary effect which the influenza pandemic seems to have had in depressing the deathrates among the survivors

Mean Annual Deathrate per 1,000 at Specified Age Periods, 1911 to 1930. All Causes of Death. Fall or Rise in Deathrate per 1,000 per Year, with Standard Error. Colored Males and Colored Females. Metropolitan Life Insurance Company—Industrial Department

Mean Annual Deathrate per 1,000 at Specified Age Periods, 1911 to 1930. All Causes of Death. Fall or Rise in Deathrate per 1,000 per Year, with Standard Error. Colored Males and Colored Females. Metropolitan Life Insurance Company—Industrial Department.

Color; Sex; Age	1911 to 1930*				1911 to 1917				1921 to 1930			
	Deathrate per 1,000	Mean Fall (—) or Rise (+) per Year (b) with Standard Error (σ_b)†		Ratio b/σ_b	Deathrate per 1,000	Mean Fall (—) or Rise (+) per Year (b) with Standard Error (σ_b)†		Ratio b/σ_b	Deathrate per 1,000	Mean Fall (—) or Rise (+) per Year (b) with Standard Error (σ_b)†		Ratio b/σ_b
		b	$\pm\sigma_b$			b	$\pm\sigma_b$			b	$\pm\sigma_b$	
Colored Males												
Ages—1 to 74 (Standardized)§	16.2	—.28	±.052	5	18.6	—.08	±.108	1	14.3	+.21	±.048	4
1 to 4	16.3	—.79	±.069	11	21.4	**—1.31**	±.305	4	12.0	—.37	±.143	3
5 to 9	4.4	—.16	±.014	11	5.4	—.15	±.094	2	3.5	—.09	±.029	3
10 to 14	4.1	—.11	±.015	7	4.7	—.04	±.069	1	3.5	—.09	±.037	2
15 to 19	8.1	—.20	±.025	8	9.4	—.03	±.146	‡	6.8	—.06	±.030	2
20 to 24	10.2	—.25	±.039	6	12.1	**—.26**	±.126	2	8.5	+.11	±.029	4
25 to 34	11.8	—.29	±.051	6	14.2	+.06	±.091	1	9.8	+.16	±.040	4
35 to 44	16.9	—.26	±.063	4	19.3	+.15	±.242	1	14.9	+.30	±.053	6
45 to 54	25.4	—.20	±.104	2	28.1	+.32	±.311	1	23.5	+.68	±.075	9
55 to 64	43.6	—.31	±.160	2	47.7	+.24	±.500	1	40.7	+1.02	±.186	6
65 to 74	79.7	—.41	±.242	2	85.2	+.27	±.667	‡	75.3	+1.71	±.375	5
Colored Females												
Ages—1 to 74 (Standardized)§	15.2	—.26	±.027	10	17.0	—.16	**±.084**	2	13.5	—.02	±.096	‡
1 to 4	15.1	—.80	±.057	14	20.4	—.87	±.205	4	10.7	—.39	±.140	3
5 to 9	4.4	—.20	±.020	10	5.7	—.07	±.088	1	3.1	—.06	±.026	2
10 to 14	4.7	—.19	±.015	13	5.8	—.08	±.063	1	3.6	—.16	±.022	7
15 to 19	10.0	—.24	±.033	7	11.5	—.11	±.120	1	8.5	—.09	±.037	2
20 to 24	11.2	—.23	±.024	10	12.4	—.33	±.131	3	9.9	—.19	±.053	4
25 to 34	11.1	—.19	±.068	3	12.4	—.13	±.106	1	9.9	—.01	±.035	‡
35 to 44	14.8	—.17	±.028	6	16.1	—.20	±.649	‡	13.7	+.10	±.039	3
45 to 54	22.3	—.20	±.054	4	24.0	—.08	±.170	1	20.8	+.26	±.093	3
55 to 64	38.2	—.18	±.080	2	40.2	+.01	±.252	‡	36.7	+.41	±.165	3
65 to 74	70.5	—.35	±.153	2	74.0	+.74	±.703	1	67.9	+.32	±.331	1

*In computing slope constants, year 1918 omitted for series 1911 to 1930. †Figures in bold face are "significant," *i.e.*, the slope constant is two or more times the standard error. ‡Less than 0.5. §Standardized on "Standard Million," England and Wales 1901.

is wearing off. We have not yet returned to the old level, it is true and we may hope that the ascent in the curve which has characterized the period since 1921 will not continue long enough to bring these deathrates among the older colored persons back to the old level.

The table on page 7 gives details of the mean annual deathrate per 1,000 over the period 1911 to 1930 and also the fractional periods 1911 to 1917, and 1921 to 1930, for several age groups from one to 74 years among colored persons, separately, according to sex. It also shows the mean annual fall or rise with its standard error. Wherever this fall or rise is significant it has been printed in bold face type; and a column in the table, furthermore, gives the ratio of the mean annual fall or rise to its standard error. Wherever this ratio exceeds two, the change may be regarded as significant.

OCCUPATIONAL FATALITIES DECREASED IN 1930

During 1930, there occurred a decrease of 13.8 per cent. in the deathrate from occupational injuries among adult policyholders in the Industrial Department of the Metropolitan Life Insurance Company. In that year, the rate from these occupational fatalities was 13.1 per hundred thousand; in the year before, the rate was 15.2. The NATIONAL SAFETY COUNCIL also estimates a decline for industrial fatalities in the entire working population of the United States, from 20,000 in 1929 to 19,000 in 1930. This decline was so marked as to affect favorably the whole accident record of the year 1930.

The improvement in fatal occupational injuries last year was in all probability due to lessened employment among the wage working population of the United States and Canada and probably does not indicate any change in essential hazards. A decline in the number of occupational accidents and deaths is generally noted in periods of unemployment and of business depression. It is true that for selected industries and for individual establishments supporting effective safety work, there has been a marked decline in lost time and fatal injuries, but the amount and character of safety work applied to the hazards of employment are not as yet sufficiently extended to effect a material reduction in the number of occupational deaths of the wage earning population as a whole.

This conclusion is indicated by the record for occupational accident fatalities among adult policyholders of the Metropolitan Life Insurance Company between 1922 and 1930. The facts are presented in the following table. It will be observed that the deathrates vary somewhat from year to year. But the annual variations when they

are not due to mere chance, reflect merely the changes in number of employed persons in the hazardous industries and not the control of hazards in industry. That is why we consider that there has not been any tendency toward reduction in the industrial accident fatalities during the last decade.

Deathrates per 100,000 from Occupational Accidents, 1922 to 1930. Ages 15 and Over. Metropolitan Life Insurance Company, Industrial Department

Means of Injury†	1922 to 1930		1930	1929	1928	1927	1926	1925	1924	1923	1922
	Death-rate per 100,000	Per Cent. of Total									
All Occupational Accidents	14.7	100.0	13.1	15.2	12.8	15.2	15.7	15.2	14.4	16.8	14.9
Conflagration	.2	1.6	.3	.1	.2	.2	.2	.3	.4	.2	.2
Accidental burns (conflagration excepted)	.6	4.3	.7	.6	.7	.6	.8	.6	.6	.7	.5
Accidental absorption of poisonous gas	.2	1.4	.1	.2	.1	.2	.2	.2	.2	.3	.3
Accidental drowning	.8	5.6	.7	.7	.7	.9	.9	.9	.8	.9	.9
Traumatism by firearms	.1	.3	.1	*	*	.1	*	.1	.1	.1	.1
Traumatism by cutting or piercing instruments	.1	.9	.2	.2	.1	.2	.2	.1	.1	.1	.1
Traumatism by fall	2.1	14.1	2.2	2.1	1.8	2.1	2.0	2.3	2.0	2.1	2.2
Traumatism in mines and quarries	1.8	11.9	1.5	2.0	1.8	2.1	1.8	1.7	1.7	1.7	1.5
Traumatism by machines	1.8	12.5	1.6	2.0	1.6	1.7	1.9	1.7	1.7	2.3	2.2
Traumatism by means of transport:											
Steam railroad	1.9	12.9	1.0	1.9	1.4	2.0	2.3	2.0	1.9	2.8	2.1
Street cars	.2	1.4	.2	.1	.1	.2	.3	.2	.3	.3	.2
Automobiles	1.4	9.2	1.6	1.5	1.3	1.4	1.3	1.2	.9	1.6	1.3
Aeroplanes and balloons	.1	.6	.1	.2	.1	.1	.1	.1	.1	.1	.1
Other means of transport	.5	3.7	.3	.4	.4	.5	.6	.7	.6	.7	.9
Traumatism by landslide, other crushing	.3	2.1	.2	.3	.2	.3	.3	.3	.3	.5	.3
Injuries by animals, not poisoning	.1	.8	.1	.1	.1	.1	.1	.2	.2	.2	.1
Electricity (lightning excepted)	.8	5.5	.7	.8	.7	.8	.9	1.0	1.0	.8	.7
Other and not specified accidental external violence	1.6	11.1	1.5	1.8	1.5	1.7	2.0	1.8	1.5	1.6	1.3

* Less than .05 per 100,000 policyholders at ages 15 and over.
†Titles of the International List of Causes of Death, 1920 Revision.

Among these Metropolitan adult Industrial policyholders in 1930, we find that 14 per cent. of these fatalities were due to falls. Injuries on steam railroads were next in rank with 12.9 per cent. of occupational accident fatalities, and machinery accidents accounted for 12.5 per cent. of the accidents in industry; the mine and quarry accidents comprised 11.9 per cent.

The industrial fatalities are concentrated largely in the adult male population. In 1930, there occurred 31.6 deaths per hundred thousand

from occupational accidents among males 15 years of age and over; among females, the rate was only .4 per hundred thousand.

The loss situation in workmen's compensation insurance in recent years bears out the general implications of these broad figures for wage earners as a whole. Industry has been mechanized more than in any other period of similar length in industrial history, construction and industrial enterprises have approached giant proportions, and newer industries with new and imperfectly controlled hazards have arisen. One of the tasks facing business management is to control the newer and different hazard factors which have held the occupational accident deathrate at a constant level since 1922.

HEALTH RECORD FOR SEPTEMBER, 1931

Average health conditions prevailed among Metropolitan Industrial policyholders during the month of September. The deathrate (8.0 per 1,000) was slightly higher than that for last year (7.9).

There are two items of especial interest in the mortality report for the month. One is the enormous deathrate of 25.7 per 100,000 for automobile accidents. This is the highest mortality rate ever recorded for this cause of death during the month of September and, with a single exception, the maximum for any month of any year. The actual number of lives lost was 374. The second item relates to the cancer deathrate, September being the first month, so far in 1931, to record a lower mortality from this disease than was registered during the corresponding month of the preceding year.

The deathrate of the general population of the large cities of the United States, in September, was 10.2 per 1,000 estimated population, as compared with 10.3 in August and 10.2 in September a year ago. The reportable diseases which increased in incidence during September, as compared with August, were diphtheria, influenza, poliomyelitis, scarlet fever and typhoid fever. There were fewer cases of measles and smallpox. Comparison with September a year ago shows more sickness from diphtheria, measles, poliomyelitis, scarlet fever and typhoid fever, with fewer cases of influenza.

Interest in the situation with respect to communicable diseases centers at this time on poliomyelitis. Reports from forty-six states show 4,696 cases in September, as against 3,710 in August. In New York State, nevertheless, which was the original focus of the present epidemic, case reports dropped to 1,741 in September from 2,264 in August. These increases occurred in Massachusetts, Connecticut, New Jersey and Pennsylvania.

The following table shows the mortality among Industrial policyholders for September, 1931; August, 1931, and September, 1930, together with the cumulative rate for the first nine months of each year.

METROPOLITAN LIFE INSURANCE COMPANY

Deathrates* per 100,000 for Principal Causes, Premium-Paying Business in Industrial Department (Annual Basis)

MONTHS OF SEPTEMBER, 1931; AUGUST, 1931, AND OF SEPTEMBER, 1930

CAUSES OF DEATH	ANNUAL RATE PER 100,000 LIVES EXPOSED*				
	Sept. 1931	Aug. 1931	Sept. 1930	Cumulative, January to September	
				1931	1930
TOTAL—ALL CAUSES	797.8	735.5	792.9	898.3	891.7
Typhoid fever	4.7	3.2	4.1	1.9	2.0
Measles	.4	.7	.6	3.8	3.6
Scarlet fever	1.2	1.7	1.1	3.4	2.7
Whooping cough	4.1	4.2	4.6	3.7	4.8
Diphtheria	2.2	1.9	2.7	3.9	5.9
Influenza	4.5	4.6	5.6	24.3	15.8
Tuberculosis (All forms)	69.5	63.5	73.7	77.7	84.0
Tuberculosis of resp'y system	62.0	55.7	64.8	68.5	72.8
Cancer	79.4	76.1	79.9	82.6	77.6
Diabetes mellitus	17.8	16.9	16.0	20.9	18.7
Cerebral hemorrhage	55.9	49.3	55.2	61.8	60.9
Organic diseases of heart	129.7	118.3	123.2	151.2	147.1
Pneumonia (All forms)	32.2	27.6	35.0	80.4	80.0
Other respiratory diseases	7.6	7.4	8.9	10.8	11.5
Diarrhea and enteritis	32.5	27.1	40.7	15.3	19.3
Bright's Disease (Chronic nephritis)	61.2	51.9	59.9	67.2	68.9
Puerperal state	9.8	9.1	10.5	11.4	12.6
Suicides	10.4	9.1	9.6	9.8	9.7
Homicides	6.6	7.5	7.5	6.8	6.6
Other external causes (excluding suicides and homicides)	63.4	70.2	65.4	61.6	63.7
Traumatism by automobiles	25.7	22.6	24.0	21.1	20.1
All other causes	204.7	185.0	188.6	199.9	196.3

*All figures in this table include insured infants under one year of age. The rates for 1931 are subject to slight correction, since they are based on provisional estimates of lives exposed to risk.

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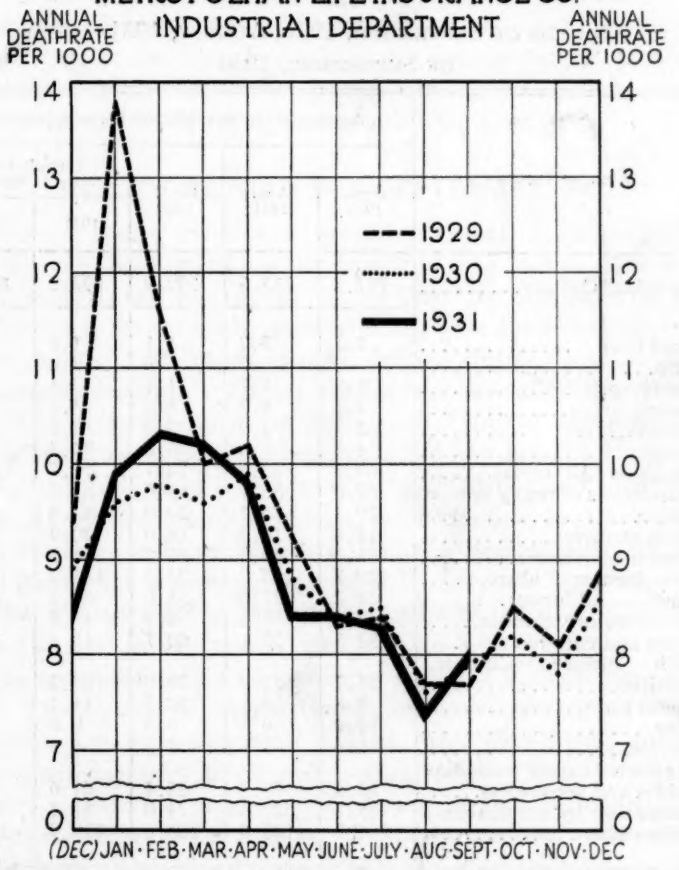
DEATHRATES
FROM ALL CAUSES

METROPOLITAN LIFE INSURANCE CO.
INDUSTRIAL DEPARTMENT



1929	13.8	11.6	10.0	10.2	9.2	8.3	8.4	7.7	7.7	8.5	8.1	8.9
1930	9.6	9.8	9.6	9.9	8.8	8.4	8.5	7.6	7.9	8.2	7.8	8.6
1931*	9.9	10.3	10.2	9.8	8.4	8.4	8.3	7.4	8.0			

*Rates for 1931 are provisional

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